

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions and listings of claims in this application.

Listing of Claims:

1.-29. (Cancelled)

30. (Currently Amended) ~~A process for secured distribution of video sequences according to a digital stream format stemming from an encoding based on a processing by wavelets comprising frames comprising blocks containing coefficients of wavelets describing the visual elements, comprising:~~

securing distribution of video sequences according to a digital stream format derived from an encoding based on a processing by wavelets;

analyzing the a digital stream prior to transmission to a client equipment to generate a modified main stream by deletion and replacement of selected information for coding the an original digital stream, the modified main stream and having the a format of the original digital stream, and to generate complementary information of any format comprising the a digital information for coding the original digital stream, the complementary information being and suitable for permitting reconstruction of the modified frames; and

transmitting the modified main stream and the complementary information separately from a server to an addressed equipment.

31. (Currently Amended) The process according to claim 30, wherein the wavelets comprise frames including blocks, the blocks including coefficients of wavelets describing visual elements, and

wherein the analysis comprises scrambling including ~~comprises~~ modifying the
coefficients of wavelets belonging to at least one temporal subband resulting from
temporal analysis.

32. (Currently Amended) The process according to claim 30, wherein the wavelets
comprise frames including blocks, the blocks including coefficients of wavelets
describing visual elements, and

wherein the analysis comprises scrambling ~~comprises including~~ modifying the
wavelet coefficients belonging to at least one spatial subband resulting from spatial
analysis of a temporal subband.

33. (Currently Amended) The process according to claim 30, wherein the wavelets
comprise frames including blocks, the blocks including coefficients of wavelets
describing visual elements, and

wherein the analysis comprises scrambling ~~comprises including~~ modifying the
coefficients of wavelets belonging to at least one temporal subband resulting from
temporal analysis of one spatial subband.

34. (Currently Amended) The process according to claim 30, wherein the wavelets
comprise frames including blocks, the blocks including coefficients of wavelets
describing visual elements, and

wherein the wavelet coefficients to be modified are at least randomly selected
and/or defined a priori.

35. (Currently Amended) The process according to claim 30, wherein the analysis
comprises scrambling, wherein parameters for the scrambling are a function of properties

of at least one of temporal scalability, ~~and/or spatial scalability, and/or qualitative scalability, and/or temporal scalability,~~ transmission rate scalability and/or scalability by regions of interest offered by digital streams generated by wavelet-based coders.

36. (Currently Amended) The process according to claim 30, wherein the wavelets comprise frames including blocks, the blocks including coefficients of wavelets describing visual elements, and

wherein visual intensity of degradation of the video sequences is determined by a quantity of modified wavelet coefficients in each spatial-temporal subband.

37. (Previously Presented) The process according to claim 30, wherein intensity of visual degradation of the video sequences decoded from the modified main stream is a function of a position in the original digital stream of the modified data, which data represents, according to its positions, values quantified according to different accuracies of wavelet coefficients belonging to a spatial-temporal subband.

38. (Previously Presented) The process according to claim 30, wherein intensity of visual degradation of the video sequences decoded from the modified main stream is determined according to which quality layer of modified wavelet coefficients they belong to in each spatial-temporal subband.

39. (Currently Amended) The process according to claim 30, wherein the wavelets comprise frames including blocks, the blocks including coefficients of wavelets describing visual elements, and

wherein modification of wavelet coefficients is carried out directly in a binary stream.

40. (Currently Amended) The process according to claim 30, wherein the wavelets comprise frames including blocks, the blocks including coefficients of wavelets describing visual elements, and
wherein modification of wavelet coefficients is carried out with a partial decoding.

41. (Currently Amended) The process according to claim 30, wherein the wavelets comprise frames including blocks, the blocks including coefficients of wavelets describing visual elements, and
wherein modification of wavelet coefficients is carried out during coding or by carrying out a decoding then a complete re-encoding.

42. (Currently Amended) The process according to claim 30, wherein size of the modified main stream is strictly identical to the size of the original digital ~~video~~-stream.

43. (Currently Amended) The process according to claim 30, wherein the wavelets comprise frames including blocks, the blocks including coefficients of wavelets describing visual elements, and
wherein substitution of the wavelet coefficients is carried out with random or calculated values.

44. (Currently Amended) The process according to claim 30, wherein the wavelets comprise frames including blocks, the blocks including coefficients of wavelets describing visual elements, and
wherein duration of visual scrambling obtained in a group of frames is determined as a function of a temporal subband to which modified wavelet coefficients belong.

45. (Previously Presented) The process according to claim 30, wherein visual scrambling obtained in a group of frames is limited spatially in a region of interest of each frame.

46. (Currently Amended) The process according to claim 30, wherein the complementary information is organized in layers of at least one of temporal, ~~and/or~~ spatial, ~~and/or~~ qualitative, ~~and/or~~ transmission rate scalability, ~~and/or~~ scalability by region of interest.

47. (Currently Amended) The process according to claim 30, wherein the stream is progressively descrambled with different levels of at least one of quality, ~~and/or~~ resolution, ~~and/or~~ frame rate, ~~or and/or~~ according to a region of interest via sending a part of the complementary information corresponding to layers of at least one of qualitative, ~~and/or~~ spatial ~~and/or~~ temporal scalability ~~and/or~~ scalability for a region of interest.

48. (Currently Amended) The process according to claim 30, wherein the stream is partially descrambled according to different levels of at least one of quality, ~~and/or~~ resolution, ~~and/or~~ frame rate, ~~and/or~~ or according to a region of interest via sending a part of the complementary information corresponding to a layer or layers of at least one of qualitative, ~~and/or~~ spatial, ~~and/or~~ temporal scalability ~~and/or~~ scalability for this region of interest.

49. (Currently Amended) The process according to claim 30, wherein a synthesis of ~~the~~ digital stream in an original format is calculated in the addressed equipment as a function of the modified main stream and the complementary information.

50. (Previously Presented) The process according to claim 30, wherein transmission of the modified main stream is realized via a physically distributed material support.

51. (Currently Amended) The process according to claim 30, wherein the modified main stream undergoes operations of at least one of transcoding, rearrangement and/or extraction of frames or groups of frames during transmission.

52. (Previously Presented) The process according to claim 30, wherein transmission of the complementary information is realized via a physically distributed support material.

53. (Currently Amended) The process according to claim 30, wherein the wavelets comprise frames including blocks, the blocks including coefficients of wavelets describing visual elements, and

wherein modification of wavelet[.] coefficients is reversible and a digital stream reconstituted from the modified main stream and from the complementary information is identical to the original digital stream.

54. (Currently Amended) The process according to claim 30, wherein the wavelets comprise frames including blocks, the blocks including coefficients of wavelets describing visual elements, and

wherein modification of wavelet coefficients is reversible and a portion of the digital stream reconstituted from the modified main stream and from the complementary information is identical to a corresponding portion in the original stream.

55. (Currently Amended) The process according to claim 53, wherein reconstitution of a descrambled video stream is at least controlled and/or limited in terms of at least one of a predefined frame rate, and/or resolution, and/or transmission rate, and/or quality as a function of rights of a user.

56. (Currently Amended) The process according to claim 54, wherein reconstitution of a descrambled video stream is at least controlled and/or limited in terms of at least one of predefined frame rate, and/or resolution, and/or transmission rate, and/or quality as a function of rights of a user.

57. (Currently Amended) The process according to claim 53, wherein reconstitution of a descrambled video stream is at least controlled and/or limited in terms of at least one of predefined frame rate, and/or resolution, and/or transmission rate, and/or quality as a function of viewing apparatus on which it is visualized.

58. (Currently Amended) The process according to claim 54, wherein reconstitution of a descrambled video stream is at least controlled and/or limited in terms of at least one of predefined frame rate, and/or resolution, and/or transmission rate, and/or quality as a function of viewing apparatus on which it is visualized.

59. (Previously Presented) The process according to claim 53, wherein reconstitution of a descrambled video stream is carried out in a progressive manner in stages under reconstitution of the original video stream is achieved.

60. (Previously Presented) The process according to claim 54, wherein reconstitution of a descrambled video stream is carried out in a progressive manner in stages under reconstitution of the original video stream is achieved.

61. (Currently Amended) A system for fabricating a video stream ~~that runs the process according to claim 30~~, comprising:

at least one multimedia server containing original video sequences;

a device for analyzing the video stream;

a device for separating ~~the~~ an original video stream into a modified main stream by deletion and replacement of selected information for coding the original visual-video signal stream and into complementary information comprising a digital information for coding the original digital stream as a function of this analysis; and

at least one device in an addressed equipment for receiving the modified main stream and the complementary information separately from the server and for reconstructing ~~on~~ of the video stream as a function of the modified main stream and the complementary information.

wherein the system executes a process for secured distribution of video sequences according to a digital stream format derived from an encoding based on a processing by wavelets.